

REMARKS

This is in response to the Office Action dated January 11, 2006. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

By the above amendment, each of independent claims 22 and 29 has been amended, and claims 23 and 26 have been cancelled. Therefore, claims 22, 24-25 and 27-29 are currently pending in the present application. Note that the limitations added to the independent claims were previously recited in dependent claims, and therefore could not raise a new issue requiring further consideration.

On page 2 of the Office Action, the drawings are objected to under 37 CFR 1.83(a) because the current lead formed of intertwined wires was not illustrated. In response, proposed drawing corrections are submitted herewith to show the current lead formed of intertwined wires. Upon approval of the proposed drawing corrections, corrected replacement drawings will be submitted.

Next, claim 22 has been amended adopt the Examiner's suggestions, and thereby obviating the objection to claim 22.

Next, on page 3 of the Office Action, claims 22-29 are rejected under 35 U.S.C. 112, first paragraph because the Examiner contends that the limitation "a current lead formed of several intertwined wires" represents new matter. This rejection is respectfully traversed. Note, the fact that this feature is not shown in the drawings is addressed by the proposed drawing corrections. The language on page 4, lines 4-6 describes the electric cable 1 (Fig. 1) as having a conductor (i.e. inner conductor 2) with "several intertwined wires." Although the original drawings do not adequately show this feature, the language is clearly describing the conductor 2 of each electric cable. Note that the term "intertwined" is more commonly used with word stranded or the word twisted. Further, the text in the original specification clearly refers to the single cable shown in Fig. 1 and the intertwined identical cables shown in Fig. 2. The last part of line 6 is clearly describing the inner conductor 2 as with (formed of) several intertwined wires.

In view of the above, the Examiner is requested to withdraw the rejection under 35 U.S.C. 112, first paragraph because one of ordinary skill in the art would have understood that the structure of the conductor 2 is being described in line 6 of page 4 of the specification as originally filed.

Next, in response to the Examiner's rejection of claims 22-26 under 35 U.S.C. 112, second paragraph, the Examiner's interpretation of the previous language has been adopted. Thus, the rejection of claims 22-26 under 35 U.S.C. 112, second paragraph is now clearly obviated.

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Next, on pages 4-7 of the Office Action, claims 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ijff et al. (U.S. Patent No. 4,358,636). It is submitted that the present invention, as defined in claims 22 and 29, now clearly distinguishes over the Ijff reference for the following reasons.

Ijff discloses an electrical cable with eight identical coaxial units, each of which comprises a central conductor 2 formed of silver-plated copper, a first dielectric layer 3 formed of polytetrafluoroethylene, a second layer 4 formed of transparent polyethylene, and a braid 5 of copper wires surrounding layer 4. A helical layer of copper tinned wires is placed around the central coaxial unit 1. Note that the cable of the present invention does not include a "central" coaxial unit but rather is formed of three identical cables that are symmetrically arranged.

In the rejection, the Examiner asserts that the lines that are concentrically distributed around the conductor in Ijff are neutral or return lines. As clearly described in column 4, lines 10-12, the braid 5 of copper wires forms an outer conductor. Thus, the Examiner's characterization of braid of copper wires is incorrect, and this element does not correspond to the limitations of claims 22 and 29 that require "a neutral or return line formed by a number of component conductors that are distributed concentrically about the current lead."

Further, each of claim 22 and 29 require a plurality of dummy conductors and a plurality of control conductors for control, monitoring, measurement and command purposes, wherein the dummy conductors and the control conductors are embedded in the neutral or return line, which is formed by the component conductors. On page 5 of the Office Action, the Examiner asserts that this limitation is met by the Ijff reference. However, the Examiner does not identify the specific structure in Ijff that meets this limitation. The general assertion that the Ijff control conductors (unidentified) could perform the functions specified in the claim is purely speculative. Should the Examiner

maintain this position, then the Examiner is requested to specifically identify the dummy conductors and the control conductors in the Ijff cable.

Further, the insulation surrounding the conductor in Ijff is relatively very thick. However, the thick insulation is necessary because it is used for high frequency and low voltage and low current, normally 15V and in the range of milli-Amperes. In contrast, the cable of the present invention is used for the opposite, i.e. high current (260 Amperes per phase) and high voltage up to 1000 Volts, but "only" 400 Hz frequency. Thus, the insulation must be small in order to get a small inductivity at such high loads. Thus, the thickness of the protective insulation is not merely an obvious matter of design choice as suggested by the Examiner.

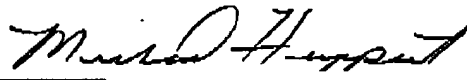
In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to enter the above amendment and pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

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